

Disaster Planning and Policies

Course Overview: Demographic changes, human settlement patterns, land-use decisions, and political and social policy dynamics have increased vulnerability to natural and man-made disasters. Planning and policy processes and interventions can help reduce disaster vulnerabilities and increase resilience at every stage of the disaster management cycle: disaster mitigation, preparation, response, and recovery.

Course Format:

The course will be divided into four modules relating to planning and policy processes corresponding to these four traditional phases of disaster management. Throughout the semester, particular attention will be paid to how disaster planning and policy efforts can increase and promote resilience and reduce vulnerabilities. This course will be designed to serve as an upper level Bachelor's degree course and could be easily adapted to the graduate level with the addition of other reading materials, and will be based on a model of 15 three-hour sessions, separated into one session a week for 15 weeks. Alternatively, the course material could be broken up into a twice-a-week or three-times-a-week format if desired.

Course Objectives: This course proposes to provide students with the following:

- a) Understanding of the roles of the various phases of disaster management and issues concerning planning and policies in those phases.
- b) Understanding of comprehensive emergency management from a planning and policy perspective
- c) Understanding of the role of federal, state, and local governments in disaster planning and policies.
- d) Knowledge of mitigation planning and policy strategies.
- e) Understanding of comprehensive emergency management and related plans
- f) Understanding of factors affecting short and long-term recovery and rebuilding and the role of planners and policy-makers.
- g) Understanding of the factors that give rise to disaster vulnerabilities (e.g. natural, physical, social, economic, policies, and governance).
- h) Understanding of the factors that give rise to differential vulnerabilities and levels of community resilience
- i) Knowledge and capabilities to assess and manage these vulnerabilities through disaster planning and policy-making.
- j) Data, methods, tools, and geospatial techniques (including GIS) that can enhance vulnerability assessments and knowledge building.
- k) Competencies to utilize mapping in mitigation planning and response operations

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Course Textbooks:

- Waugh, William L. Jr. (2000). *Living with Hazards, Dealing with Disasters: An Introduction to Emergency Management*. Armonk, New York: M.E. Sharpe.
- Burby, Raymond (1998). *Cooperating with Nature: Confronting natural hazards with land-use planning for sustainable communities*. Joseph Henry Press.

Additional Reading

Additional reading assignments have been selected from articles and Web Sites. Where possible, the weblinks to the articles are noted, but they may require permission/access from the instructor's library/school.

Students are also encouraged to use Internet information sources and may subscribe to discussion lists for a variety of disaster organizations and related professions and receive email notification of major earthquakes and other disasters, federal disaster relief announcements, job announcements, research opportunities, and other relevant professional news from the field.

The instructor should encourage students to become familiar with the following sites:

- www.fema.gov - for basic information on the federal emergency management system, reports, legal documents, training and planning documents, and status reports on disasters, as well as links to state and local emergency management agencies (including a link to the Florida Emergency Management Agency).
- www.colorado.edu/hazards - for information regarding specific hazards, full texts of the Natural Hazards Center's series of working papers and quick response reports for recent disasters, and other information sources.
- www.dhs.gov - for basic information on the Department of Homeland Security, including FEMA, and its constituent agencies and directorates.
- www.iaem.com - for information on the International Association of Emergency Managers (including IAEM Europa, IAEM Oceana, and IAEM Asia), job listings, commentary on current policy issues.
- www.drc.udel.edu - for applied social science research related to disasters, full texts of some of the Disaster Research Center's publications, including reports to FEMA and other government agencies.
- www.emforum.org - Emergency Information Infrastructure Partnership (EIIP) forum. Holds Internet workshops on a broad range of emergency management issues and maintains an archive of transcripts.

Class Format

Instructors can structure the classes as a mix of lectures, class discussions, and student presentations depending on the level at which it is being taught. They could also request select guest speakers and a site visit to the local Emergency Operations Center for the topic on Emergency Operations Planning

would benefit students. Instructors can also use e-portals such as Blackboard to post the syllabus, related websites, and other class materials on a class website.

Class Requirements:

All reading should be done before each session to facilitate discussion. Required course assignments include the following: 1) class participation; 2) two quizzes; 3) a applied research project; and, 4) a final examination.

- 1) **Class Participation:** Class participation is an essential component of the requirements for successful completion of this class. Points for class participation are not simply guaranteed by attendance; participation consists of being present in class, reading all assignments prior to the beginning of class, and being an active member in class discussions and presentations. In addition, there will be some class activities, case analyses, and discussions. Class participation is important, because your presence and contributions are a vital part of a successful class. Interaction with others is as important a part of the learning experience as is the material being studied.
- 2) **Quizzes:** There will be two quizzes held. These will cover all the material in class up to the date of the quiz. It will consist of multiple-choice, true/false, and short essay questions.
- 3) **Final Examination:** The final examination will consist of short essay questions.
- 4) **Applied Research Project: Disaster Case Analysis:**
Students should select a major U.S. or international disaster and prepare a written analysis (15-20 pages in length) including bibliography. Students should be prepared to provide a 5-10 minute over in class during the last class session. Using library and internet sources, the analyses should assess the state of knowledge about the disaster and provide an analysis that includes:
 - a) a brief (1-2 page) description of the disaster and the emergency management effort;
 - b) the nature and location of the disaster (i.e., natural or technological/man-made);
 - c) the number of human casualties and amount of property loss.
 - d) social and economic demographics and vulnerabilities of the area
 - e) the government(s) having jurisdictional responsibility and involved in the disaster response and recovery effort;
 - f) the involvement of nonprofit and for-profit actors in the response and recovery effort;
 - g) the major planning and policy issues raised—e.g., lack of mitigation effort, inadequacy of preparedness, response failure, recovery problems; and
 - h) the disaster planning the community had undertaken prior to the incident.

The assignment of points and the grading scale is as follows:

Class Participation	10%
Quizzes	30%
Final Examination	20%
Applied Research Project	30%
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Total	100%

Academic Honesty

All the work that you submit must be your own. Plagiarism is a serious violation of the student honor code and will not be tolerated. Plagiarism will result in an “F” on the plagiarized paper, a possible “F” in the course, and may also lead to dismissal from the University. For more information on this issue, please read the recommended student guidelines at http://www.fau.edu/caupa/pdf/ethics_student_guidelines.pdf.

Students with Disabilities

In compliance with the Americans with Disabilities Act (ADA), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) and follow all OSD procedures.

Course Topics:

Week 1: Introduction: Hazards and Disasters: Planning and Policies

- Instructor and Student Introductions
- Course and Syllabus Introduction and Discussion
- Discussion of Course Objectives
- Video clip of Recent Disaster to Generate Discussion on Course
- Explanation of Course Requirements
- Ice-breaker Exercise for Students

Recommended Readings For the Instructor:

- Drabek, T. E. (2003a). Emergent phenomena and the sociology of disaster: Lessons, trends and opportunities from the research literature. Disaster Prevention and Management 12: 97-112
- Articles from the Public Administration review special issue: **Public Administration Review, Vol. 45, Special Issue: Emergency Management: A Challenge for Public Administration (Jan., 1985). Includes the following articles:**
 - Emergency Management: A challenge for Public Administration. WJ Petak
 - A Framework for Integrated Emergency Management : D McLoughlin
 - Managing the Emergency response : TE Drabek

Module 1: Disaster Mitigation Policies and Planning

Week 2: U.S. Disaster Policies: History and Institutions:

Required Readings:

- W. Waugh, Living with Hazards: Chapter 2.
- Sylves, Rick. 2008. *Disaster Policy and Politics: Emergency Management and Homeland Security*. Washington D.C.: CQ Press, Chapters 1, 2, and 3
- Lindell, Mike, Carla Prater, and Ronald Perry. 2006. *Fundamentals of Emergency Management*, Chapters 1 and 2. "Introduction to Emergency Management" and "Emergency Management Stakeholders."
<http://training.fema.gov/EMIWeb/edu/fem.asp>
- Federal Emergency Management Agency. (2004b). History of the federal emergency management agency. Washington DC: FEMA. Retrieved March 14, 2011, from <http://www.fema.gov/about/history.shtm>

Recommended Readings:

- Mileti. 1999. *Disasters by Design*. Chapters 1 and 2.
- Gerber, B. J. (2007). Disaster management in the United States: Examining key political policy challenges. *The Policy Studies Journal*, 35(2): 227-238
<http://onlinelibrary.wiley.com/doi/10.1111/j.1541-0072.2007.00217.x/pdf>
- Schneider, Sandra K. (2005). Administrative breakdowns in the governmental response to hurricane Katrina. *Public Administration Review* Special Report 515-516
<http://web.ebscohost.com.ezproxy.fau.edu/ehost/pdfviewer/pdfviewer?hid=12&sid=77dd87d8-96ab-4e5f-a4b4-6523a685823f%40sessionmgr4&vid=2>

Week 3: Mitigation Planning and Policy Strategies: Local, State, and Federal Level

Required Readings:

- Schwab, James C (Ed). 2010. Hazard Mitigation: Integrating Best Practices into Planning. Planning Advisory Service Report # 560. Chicago, IL: American Planning Association (Chapters 2, 3 and 4)
- Burby, Raymond (Ed.). 1998. Cooperating with Nature (Chapter 7)
- Godschalk, David. 2003. Breaking the Disaster Cycle: Future Directions in Natural Hazard Mitigation.
<http://www.training.fema.gov/emiweb/downloads/breakingdisastercycle/Session01.pdf>
- Waugh. 2000. Living with Hazards, Chapter 5

Recommended Readings:

- Mileti. 1999. *Disasters by Design*. Chapter 5.
- Burby, Raymond (Ed.). 1998. Cooperating with Nature (Chapter 4)
- Deyle, R.E.; Chapin, T.S and Baker, E.J. (2008). The proof of the planning is in the platting: An evaluation of Florida's hurricane exposure mitigation planning mandate. *Journal of American Planning Association* 74(3): 349-370

Week 4: Measuring and Mapping Vulnerability

Required Readings:

- Thomas, D.S.K., P.K. Stephens and J. Goldsmith. 2009. Chapter 14. "Measuring and Conveying Social Vulnerability," in B.D. Phillips, D.S.K. Thomas, A. Fothergill and L. Blinn-Pike (Eds). *Social Vulnerability to Disasters*. Boca Raton, FL: CRC Press
- Esnard, A-M. (2007). The Nexus of Hazard Assessment, GeoSpatial Technologies, and Holistic Community Planning Strategies (Chapter 5). In "Losing Ground: Nation on Edge" Environmental Law Institute.

- Thomas, D.S.K., K. Ertugay and S. Kemec. 2007. Chapter 5 “The Role of Geographic Information Systems/Remote Sensing in Disaster Management” in H. Rodriguez, E.L. Quarantelli and R.R. Dynes (Eds). Handbook of Disaster Research. New York, NY:L Springer
- Moffatt, S.F. and Cova, T.J. (2010) Parcel-scale earthquake loss estimation with HAZUS: a case-study in Salt Lake County, Utah. Cartography and Geographic Information Science, 37: 17-29.

Recommended Readings:

- Morrow, B. H. (1999). Identifying and mapping community vulnerability. *Disasters*, 23(1), 1-18.
- Godschalk, D.R., E.J. Kaiser and P.R. Berke. Chapter 5 “Hazard Assessment: The Factual Basis for Planning and Mitigation” in Burby, Raymond (Ed.). 1998. Cooperating with Nature. Washington, DC: Joseph Henry Press.
 - NOAA Risk and Vulnerability Assessment (RVAT) - <http://www.csc.noaa.gov/rvat/rvat.html>
- Federal Emergency Management Agency (2006) HAZUS: FEMA’s Software Program for Estimating Losses from Disasters. <http://www.fema.gov/plan/prevent/hazus/index.shtm>.
- Cutter, S.L., J.T. Mitchell and M.S. Scott. (1997). Handbook for Conducting a GIS-based Hazards Assessment at the County Level. Prepared for South Carolina Emergency Preparedness Division. Accessed October 2010 from website: <http://training.fema.gov/EMIweb/edu/docs/hrm/Session%206%20-%20Handbook%20GIS-Based%20Hazards%20Assessment.pdf>
- [Tate E., S.L. Cutter, and M. Berry, 2010. "Integrated multihazard mapping." Environment and Planning B: Planning and Design 37\(4\): 646–663.](#)

Module 2: Preparedness and Planning

Week 5: Social, Economic, and Political Vulnerabilities

Required Readings:

- Bolin, B. 2007. Chapter 7 “Race, Class, Ethnicity and Disaster Vulnerability ” in H. Rodriguez, E.L. Quarantelli and R.R. Dynes (Eds). Handbook of Disaster Research. New York, NY: Springer
- Phillips, B.D. and M. Fordham. 2009. “Introduction.” Chapter 1, in B.D. Phillips, D.S.K. Thomas, A. Fothergill and L. Blinn-Pike (Eds). Social Vulnerability to Disasters. Boca Raton, FL: CRC Press
- Laska, S., and Morrow, B. (2007). "Social vulnerabilities and Hurricane Katrina: An Unnatural disaster in New Orleans." *Marine Technology Society Journal*, 40(4) 16-26.

Recommended Readings:

- Cutter, S. L. (2006). "Moral hazard, Social catastrophe: The changing face of vulnerability along the hurricane coasts." *The Annals of the American Academy of Political and Social Science*, 604(1), 102-112.
- Clark, G. E., Moser, S. C., Ratick, S. J., Dow, K., Meyer, W. B., Emani, S., et al. (1998). "Assessing the Vulnerability of Coastal Communities to Extreme Storms: The Case of Revere, MA., USA". *Mitigation and Adaptation Strategies for Global Change*, 3(1) 59-82.

Related Readings on Climate Change and Vulnerability:

- Smit, B. & Wandel, J. (2006). Adaption, adaptive capacity and vulnerability. Global Environmental Change 16: 282 - 292.
<http://www.uio.no/studier/emner/annet/sum/SUM4015/h08/Smit.pdf>
- Brooks, N., Adger, W.N., Kelly, P.M. (2005). The determinants of vulnerability and adaptive capacity at the national level and the implications for adaptation. Global Environmental Change 15: 151–163.

Week 6: Community Resilience

Required Readings:

- Cutter S.L., Burton C.G. and Emrich C.T. (2010). Disaster resilience indicators for benchmarking baseline conditions. Journal of Homeland Security and Emergency Management 7(1):1-22

- National Research Council. (2010). Building community disaster resilience through public private collaboration. Washington, DC: The National Academies Press
- Cutter, S.L.; Barnes, L.; Berry, M.; Burton, C.; Evans, E.; Tate, E.; Webb, J. (2008). A place-based model for understanding community resilience to natural disasters. Global Environmental Change 18(8): 598-606
- [Norris FH](#), [Stevens SP](#), [Pfefferbaum B](#), [Wyche KE](#), [Pfefferbaum RL](#). (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology*, 41, (1 – 2), 127 – 150

Recommended Readings:

- From FEMA.gov “Building disaster resilient communities”. Link : training.fema.gov/EMIWeb/edu/docs/hazdem/Trends-Building%20Disaster%20Resilient%20Communities.doc - 2006-12-04
- United Nations. (2007). Building disaster resilient communities: Good practices and lessons learned. International Strategy for Disaster Reduction. UNISDR publications. Retrieved on March 14, 2011 from website: http://www.unisdr.org/eng/about_isdr/isdr-publications/06-ngos-good-practices/ngos-good-practices.pdf
- Meyer, Robert J. (2006). “Why We Under-Prepare for Hazards.” pp. 153-173 In: R. J. Daniels, D. F. Kettl, and H. Kunreuther (eds). On risk and disaster: lessons from hurricane Katrina. Philadelphia: University of Pennsylvania Press
- Tobin, G.A. (1999). Sustainability and Community Resilience: The Holy grails of hazard planning? Environmental Hazards 1: 13 – 25
http://archone.tamu.edu/epsru/Course_Readings/Ldev671MARS689/LDEV671_Readings/Tobin_holygrail.pdf

Week 7: Emergency Management Planning

Required Readings:

- Schafer, W.A.; Carroll, J.M.; Haynes, S.R. and Abrams, S. (2008). Emergency management planning as collaborative community work. Journal of Homeland Security and Emergency Management, 5(1)
[http://www.bepress.com/cgi/viewcontent.cgi?article=1396&context=jhsem&sei-redir=1#search=""emergency+planning""](http://www.bepress.com/cgi/viewcontent.cgi?article=1396&context=jhsem&sei-redir=1#search=)
- Perry, R.W. and M.K. Lindell. (2003). Preparedness for Emergency Response: Guidelines for the Emergency Planning Process. *Disasters* 27(4):336-350

As a sample for analysis : A comprehensive emergency management plan of the town of West Tisbury, MA <http://www.westtisbury-ma.gov/Documents/Emer-mgmt-docs/CEMP1.pdf>

Recommended Readings:

- Hess, D. B. and Gotham, J.C. (2007). Multi-model mass evacuation in upstate New York: A review of disaster plans. Journal of Homeland Security and Emergency Management, 4(3):
[http://www.bepress.com/cgi/viewcontent.cgi?article=1317&context=jhsem&sei-redir=1#search=""comprehensive+emergency+management+plans""](http://www.bepress.com/cgi/viewcontent.cgi?article=1317&context=jhsem&sei-redir=1#search=)

Week 8: Communication and Risk Management (Policies and Plans)

Required Readings:

- Rodriguez, H., W. Diaz, J.M. Santos and B. E. Aguirre. 2007. Chapter 29 “Communicating Risk and Uncertainty: Science , Technology, and Disasters at the Crossroads” in H. Rodriguez, E.L. Quarantelli and R.R. Dynes (Eds). Handbook of Disaster Research. New York, NY: Springer
- Longstaff, P.H. and Yang, Sung-Un. (2008). Communication management and trust: Their role in building resilience to surprises such as natural disasters, pandemic flu, and terrorism. Ecology and Society 13(1)<http://www.ibcperu.org/doc/isis/8551.pdf>
- Lindell, Mike, Carla Prater, and Ronald Perry. 2006. *Fundamentals of Emergency Management*, Chapters 4. “Risk Perception and Communication.”
<http://training.fema.gov/EMIWeb/edu/fem.asp>
- Moritz, M.J. (2006). Covering the News “come hell and high water:” Journalists in a Disaster. Pp. 353-372 in Learning from Catastrophe: Quick Response Research in the Wake of Hurricane Katrina. Boulder, Colorado: Natural Hazards Center

Recommended Readings:

- Gladwin, H. and W.G. Peacock (1997). Warning and Evacuation: A Night for Hard Houses. Chapter 4, in W.G. Peacock, B.H. Morrow and H. Gladwin (Eds.). Hurricane Andrew: Ethnicity, Gender and the Sociology of Disasters. College Station, TX: Hazard Reduction and Recovery Center.
- McComas, K. A. (2006) Defining moments in risk communication research : 1996 – 2005 Journal of Health Communication 11(1): 75 – 91
<http://classweb.gmu.edu/gkreps/798/011. McComas, Defining Moments in Risk Com Research.pdf>
- Fischhoff, B (1995). Risk perception and communication unplugged: Twenty years of Process. Risk Analysis, 15(2):137-145
<http://www.soc.iastate.edu/Sapp/Fischhoff.pdf>
- Sandman, P.M. (1988). Risk Communication: Facing public outrage. Management Communication Quarterly, 2, 235 – 238

Module 3: Disaster Response: Planning for Response

Week 9: Emergency Planning

Required Readings:

- Lindell, Mike, Carla Prater, and Ronald Perry. 2006. *Fundamentals of Emergency Management*, Chapter 12.(Emergency Management Standards and Evaluation.” <http://training.fema.gov/EMIWeb/edu/fem.asp>
- Alexander, David. (2005). Towards the development of a standard in emergency planning", Disaster Prevention and Management 14(2):158 – 175
- Perry, R.W. and Lindell, M.K. (2003). Preparedness for emergency response: Guidelines for the emergency planning process. Disasters 27(4): 336 – 350.

Recommended Readings:

- Gooden, S.; Jones, D.; Martin, K.J. and Boyd, M. (2009). Social equity in local emergency management planning. State and Local Government Review, 41(1):1-12 <http://www.jstor.org/stable/pdfplus/25469798.pdf?acceptTC=true>
- Somers, S. and Svara, J.H. (2009). Assessing and managing environmental risk: connecting local government management with emergency management. Public Administration Review 69(2): 181-193 <http://onlinelibrary.wiley.com/doi/10.1111/j.1540-6210.2008.01963.x/pdf>

Recommended Activity:

Class visit to the local Emergency Operations Center (EOC) with a tour and guest lecturer from the EOC.

Week 10: Supporting Emergency Response Operations using Geospatial Technologies

Required Readings:

- Chen, A.Y; Pena-Mora, F. and Ouyang, Y. (2010). A collaborative GIS framework to support equipment distribution for civil engineering disaster response operations. Automation in Construction
- ESRI. 2010. GIS in Public Safety Website. Accessed November 2010 from <http://www.esri.com/industries/public-safety/index.html>
- Hodgson, M.E.; Davis, B.A and Kotelenska, J. (2010). Remote sensing and GIS data/information in the emergency response/ recovery phase. Geospatial Techniques in Urban Hazard and Disaster Analysis 2(4): 327-354

Recommended Readings:

- Cutter, S. L. (2003). GI science, disasters and emergency management. Transactions in GIS 7(4): 439 – 445 http://webra.cas.sc.edu/hvri/pubs/2003_GIScienceDisastersAndEM.pdf

- Rauschert, I.; Agrawal, P.; Fuhrmann, S.; Brewer, I.; Wang, H.; Sharma, R.; Cai, G., & MacEachren, A. (2002), Designing a human-centered, multimodal GIS interface to support emergency management. ACM GIS'02, 10th ACM Symposium on Advances in Geographic Information Systems, Washington, DC, USA, November, 2002, pp. 119-124. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.12.3602&rep=rep1&type=pdf>
- Radke, J., T. Cova, M.F. Sherida, a. Troy, L. Mu and R. Johnson. (2000) Challenges for GIS in Emergency Preparedness and Response. ESRI White Paper Redlands, CA: ESRI. Accessed November 2010 from website: <http://www.esri.com/library/whitepapers/pdfs/challenges.pdf>

Week 11: Collaboration and Coordination in Emergency Response Planning & Management

Required Readings:

- Hicklin, A.; O'Toole, J.; Meier, K.J. and Robinson, S.E. (2009) Calming the storm: Collaborative public management, hurricanes Katrina and Rita, and disaster response. In R. O'Leary, L.B. Bingham (eds). *The collaborative public manager: New ideas for the twenty-first century* Chapter 6
- Kapucu, Naim. (2008). Collaborative emergency management: Better community organizing, better public preparedness and response. *Disasters* 3(2): 239-262.
- Waugh, W. L. & Strelb, G. (2006). Collaboration and leadership for effective Emergency Management. *Public Administration Review*, Special Issue, pp. 131-140
http://faculty.maxwell.syr.edu/rdenever/NatlSecurity2008_docs/Waugh_CollaborationLeadership.pdf
- McEntire, D.A. . 2007. Chapter 10 "Local Emergency Management Organizations" in H. Rodriguez, E.L. Quarantelli and R.R. Dynes (Eds). *Handbook of Disaster Research*. New York, NY: Springer

Recommended Readings:

- McGuire, M. (2009). The new professionalism and collaborative activity in local emergency management. In R. O'Leary, L.B. Bingham (eds). *The collaborative public manager: New ideas for the twenty-first century* Chapter 5
- McGuire, M. and Silvia, C. (2010). The effect of problem severity, managerial and organizational capacity, and agency structure on intergovernmental collaboration: Evidence from local emergency management. *Public Administration Review*; 70(2): 279-288
<http://onlinelibrary.wiley.com/doi/10.1111/j.1540-6210.2010.02134.x/pdf>
- Kapucu, Naim. (2005). Inter-organizational coordination in dynamic context: Networks in emergency response management. *Connection* 26(2): 33-48.
<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.126.5923&rep=rep1&type=pdf>
- Drabek, T. E. (2003b). Five types of strategies for coordinating disaster responses. *ASPEP (American Society for Professional Emergency Planners) Journal* 10: 1-21.

Module 4: Disaster Recovery and Rebuilding

Week 12: Recovery Time-frames and Differential Recovery Rates

Required Readings:

- Mitchell, C.M., A-M Esnard and A. Sapat. (2010). Hurricane Events, Population Displacement and Sheltering Provision in the United States. Working Paper: College for Design and Social Inquiry, Florida Atlantic University.
- Phillips B.D. 2009. *Disaster Recovery*, Chapter 3: Disaster Recovery Planning. Chapter 8 – Business Recovery; Chapter 9 – Infrastructure and Lifelines.

Recommended Readings:

- Webb, G. R., Tierney, K. J., Dahlhamer, J. M. (2002). Predicting long term business recovery from disaster: A comparison of the Loma Prieta earthquake and hurricane Andrew. Environmental Hazards 4: 45-58.
- Berke , P.R., J. Kartez, and D. Wenger. (1993). Recovery after disaster: achieving sustainable development, mitigation and equity. Disasters: The Journal of Disaster Studies and Management, 17(2): 93–109.
- Bolin, R. and Stanford, L. (1991) Shelter, housing and recovery: a comparison of U.S. disasters. Disasters 15(1): 24–34

Week 13: Long-term recovery

Required Readings:

- Phillips B.D. 2009. *Disaster Recovery* (Chapter 15 – Financing Recovery)
- Rubin, C.B. (2009). Long-term recovery from disasters-the neglected component of emergency management. Journal of Homeland Security and Emergency Management, 6(1): 1-19
[http://www.bepress.com/cgi/viewcontent.cgi?article=1616&context=jhsem&sei-redirect=1#search="long-term+disaster+recovery"](http://www.bepress.com/cgi/viewcontent.cgi?article=1616&context=jhsem&sei-redirect=1#search=)
- Garnett, J.D. and Moore, M. (2009). Enhancing disaster recovery: Lessons from exemplary international disaster management practices. Journal of Homeland Security and Emergency Management, 7(1): 1-22
[http://www.bepress.com/cgi/viewcontent.cgi?article=1711&context=jhsem&sei-redirect=1#search="disaster+recovery+time-frames"](http://www.bepress.com/cgi/viewcontent.cgi?article=1711&context=jhsem&sei-redirect=1#search=)
- Dash, N., Morrow, B. H., Mainster, J., & Cunningham, L. (2007). Lasting effects of hurricane Andrew on a working-class community. Natural Hazards Review 8(1): 13-21

Recommended Readings:

- Bates, F. L. and Peacock W. G. (1989) Long term recovery. International Journal of Mass Emergencies and Disasters 7: 349-65.
- Bolin, R. C. (1985) Disasters and long-term recovery policy: A focus on housing and families. Policy Studies Review 4(4): 709-715

Week 14: Post-Disaster Recovery Planning and Reconstruction

Required Readings:

- Phillips B.D. 2009. *Disaster Recovery* chapter 10- Social Psychological Recovery; Chapter 11- Public Sector Recovery)
- Gavin Smith. Forthcoming. *A Review of the United States Disaster Assistance Framework: Planning for Post-Disaster Recovery*. Fairfax, VA: Public Entity Risk Institute. Selected Chapters TBD
- Olshansky, R.B. (2006). Planning after Hurricane Katrina, Journal of the American Planning Association, 72(2): 147-153.
- Natural Hazards Center and Public Entity Risk Institute. (2006). Holistic Disaster Recovery: Ideas for Building Local Sustainability after a Natural Disaster, Chapter 8.

Recommended Readings:

- Liu, Amy. (2010). Federal post-disaster recovery: A review of federal programs. Metropolitan Policy Program at Brookings http://www.urban.org/UploadedPDF/1001384-federal-post.pdf?RSSFeed=UI_CitiesandNeighborhoods.xml
- Wilson, P. (2009). Deliberative planning for disaster recovery: Re-membering New Orleans. Journal of Public Deliberation, 5(1): 1-25
[http://services.bepress.com/cgi/viewcontent.cgi?article=1104&context=jpd&sei-redir=1#search="disaster+recovery+time-frames"](http://services.bepress.com/cgi/viewcontent.cgi?article=1104&context=jpd&sei-redir=1#search=)
- Nigg J.M. (1995). Disaster recovery as a social process. Preliminary Paper #219. Disaster Research Center: University of Delaware.
<http://dspace.udel.edu:8080/dspace/bitstream/19716/625/1/PP219.pdf>
- Berke, P. R., J. Kartez, and D. Wenger. (1993). Recovery after disaster: achieving sustainable development, mitigation and equity. Disasters 17(2): 93-109.

Week 15: Post-Disaster Housing Planning

Required Readings:

- Sapat, A., C.M. Mitchell, Y. Li and A-M Esnard. Policy Learning: Katrina, Ike and Post-Disaster Housing. *International Journal of Mass Emergencies and Disasters*, Forthcoming, March 2011.
- Zhang, Y. and Peacock, W.G. (2010). Planning for housing recovery? Lessons learned from hurricane Andrew. *Journal of the American Planning Association*, 76(1): 5-24
http://pdfserve.informaworld.com/250419_751305402_916843326.pdf
- Phillips B.D. 2009. *Disaster Recovery* (Chapter 7—Housing). Boca Raton: CRC Press
- Johnson, C. (2007). Strategic planning for post-disaster temporary housing. *Disasters*, 31(4): 435-458
<http://onlinelibrary.wiley.com/doi/10.1111/j.1467-7717.2007.01018.x/pdf>
- Levine, J., A-M Esnard and A. Sapat. (2007). Population displacement and housing dilemmas due to catastrophic hurricanes. *Journal of Planning Literature* 22(1):3-15.

Recommended Readings:

- Comerio, M. (1998). *Disaster hits home: New policy for urban housing renewal*. University of California Press, Berkeley.
- Oliver-Smith, A. (1991) Success and Failure in post disaster resettlement. *Disasters* 15: 12 – 24
- Oliver-Smith, A. (1990) Post disaster housing reconstruction and social inequality: A challenge to policy and practice. *Disasters* 14(1): 7-19.
- Davidson, C.H; Johnson, C.; Lisarralde, G; Dikmen, N. and Sliwinski, A. (2007). Truths and myths about community participation in post-disaster housing projects. *Habitat International* pp. 100-115
http://www.sciencedirect.com/science?_ob=MIImg&_imagekey=B6V9H-4M6SB59-1-1&_cdi=5899&_user=2139755&_pii=S0197397506000348&_origin=gateway&_coverDate=03%2F31%2F2007&_sk=999689998&_view=c&_wchp=dGLzVlz-zSkWb&_md5=332bb410799fe3352cb0ab8f4efacd1b&_ie=/sdarticle.pdf

Week 16: Final Exam and Project Presentations

References:

- Birkland, Thomas. 2006. *Lessons of Disaster: Policy Change after Catastrophic Events*. Washington, D.C.: Georgetown University Press.
- Burby, Raymond (Ed.). 1998. *Cooperating with Nature: Confronting natural hazards with land-use planning for sustainable communities*. Joseph Henry Press.
- Drabek, Thomas. 2010. *The Human Side of Disaster*. Taylor and Francis
- Florida Department of Community Affairs. 2010. *Post-Disaster Redevelopment Planning: A Guide for Florida Communities*.
- Lindell, Michael et al., 2006. *Introduction to Emergency Management* (Wiley Pathways edition)
- Mileti, Dennis S. 1999. *Disasters by Design: A Reassessment of Natural Hazards in the United States*.
- National Research Council. 2007. *Successful Response Starts with a Map: Improving Geospatial Support for Disaster Management*
- Phillips B.D. 2009. *Disaster Recovery*. Boca Raton: CRC Press
- Schwab, J., K. C. Topping, C. C. Eadie, R. E. Deyle, and R. A. Smith. 1998. *Planning for post-disaster recovery and reconstruction*. Washington D.C: American Planning Association.
- Schwab, James C (Ed). 2010. *Hazard Mitigation: Integrating Best Practices into Planning*. Planning Advisory Service Report # 560. Chicago, IL: American Planning Association
- Tierney, K., M. Lindell, and R. Perry. 2001. *Facing the Unexpected: Disaster Preparedness and Response in the United States*. Washington, DC: Joseph Henry Press.
- Waugh, William L. Jr. 2000. *Living with Hazards, Dealing with Disasters: An Introduction to Emergency Management*. Armonk, New York: M.E. Sharpe.